## **Abstract**

Systems and methods start a process in an operating system. Additionally, a plurality of program units associated with the process are started. When a context shifting event occurs, each of the plurality of program units has their scheduling synchronized and their context set so that each thread processes the context shifting event. A further aspect of the system is that some program units may be executing on more than one multiple processor unit. In the operating system selects a multiple processor unit to host all of the program units, and migrates those program units that are not currently on the selected multiple processor unit to the selected multiple processor unit.

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